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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In re Patent Application of

Atty Dkt. 2483-26

ROOS

C# M#

Serial No. 09/741,741

TC/A.U.: 2631

Filed: December 21, 2000

Examiner: Bayard, Emmanuel

Date: June 27, 2005

Title: APPARATUS AND METHOD FOR PROVISION OF A BACK-UP CONNECTION IN
A TELECOMMUNICATIONS SYSTEM

Mail Stop Appeal Brief - Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

☐ **Correspondence Address Indication Form Attached.**

☐ **NOTICE OF APPEAL**

Applicant hereby **appeals** to the Board of Patent Appeals and Interferences
from the last decision of the Examiner twice/finally rejecting
applicant's claim(s).

\$500.00 (1401)/\$250.00 (2401) \$

☒ An appeal **BRIEF** is attached in the pending appeal of the
above-identified application

\$500.00 (1402)/\$250.00 (2402) \$ 500.00

☐ Credit for fees paid in prior appeal without decision on merits

-\$ ()

☐ A reply brief is attached.

(no fee)

☐ Petition is hereby made to extend the current due date so as to cover the filing date of this
paper and attachment(s)

One Month Extension \$120.00 (1251)/\$60.00 (2251)

Two Month Extensions \$450.00 (1252)/\$225.00 (2252)

Three Month Extensions \$1020.00 (1253)/\$510.00 (2253)

Four Month Extensions \$1590.00 (1254)/\$795.00 (2254) \$

☐ "Small entity" statement attached.

Less month extension previously paid on

-\$ ()


TOTAL FEE ENCLOSED \$ 500.00

Any future submission requiring an extension of time is hereby stated to include a petition for such time extension.
The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or
asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this
firm) to our **Account No. 14-1140**. A duplicate copy of this sheet is attached.

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Signature: _____





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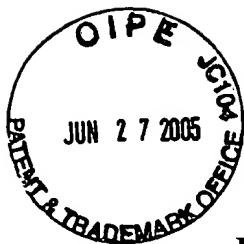
BRIEF FOR APPELLANT
On Appeal From Final Rejection
From Group Art Unit 2631

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TABLE OF CONTENTS

I. REAL PARTY IN INTEREST	1
II. RELATED APPEALS AND INTERFERENCES.....	1
III. STATUS OF CLAIMS	2
IV. STATUS OF AMENDMENTS.....	2
V. SUMMARY OF THE CLAIMED SUBJECT MATTER	2
VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL	3
VII. ARGUMENT	4
VIII. CONCLUSION.....	11
IX. CLAIMS APPENDIX	A1
X. EVIDENCE APPENDIX.....	A5
XI. RELATED PROCEEDINGS APPENDIX	A5



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APPEAL BRIEF

Sir:

I. REAL PARTY IN INTEREST

The real party in interest is the assignee, Telefonaktiebolaget L M Ericsson (publ),
a Swedish corporation.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals related to this subject application. There are no
interferences related to this subject application.

III. STATUS OF CLAIMS

Claims 12-22 are pending. Claims 12-22 stand rejected under 35 U.S.C. §103 as being unpatentable based on McHale in view of Bremer and further in view of Duffie.

IV. STATUS OF AMENDMENTS

The after final submission on March 23, 2005 has entered by the Examiner.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The inventor long ago recognized the significant demand for high speed data services for a variety of data applications. He also understood that speed was not the only concern and that data communication reliability was also important. For example, once a high speed modem for a data communication has been installed and activated, what happens to that connection if that high speed modem connection fails for any reason, (e.g., mistakes during installation or activation, instabilities in power distribution, PSTN signal interference in the network, etc.)? See page 2 of the specification. And how are large numbers of installed and connected high speed data connections monitored to ensure proper operation and to detect failures? See page 3 of the specification.

These problems are solved using the invention defined in claims 12 and 18. A non-limiting, example arrangement is shown in Figure 3. A user terminal 10, 20 is coupled to a net terminal 12, 22 which operates as a gateway between the user terminal and an xDSL network. The net terminal includes an analog, narrowband (e.g., V.90)

modem 16, 26 and a broadband (e.g., xDSL) modem 18, 28. An initial narrowband connection for the data communication is preferably established using the analog modem.

To the switch over to a broadband connection, the net terminal instructs a broadband access control server 70 to communicate with a switch-over function on the "station side" (the station side in Figure 3 includes blocks 40, 50, 60, and 70), which can be situated in a cross connect 40, a modem pool 50, or some other unit under the control of the access server 70. The access server 70 then transmits a signal to the net terminal which then activates a switch-over in the net terminal. The xDSL modem of the net terminal is then able to transceive data at high data rates with the modem pool 50 on the station side.

But if the high speed communication is interrupted for any reason, the switch-over functions in both the terminal and station sides are deactivated by access server 70, and the communication is continued on the narrowband connection used initially to establish the session. That way the transmitted data still reaches its intended destination, albeit at a slower rate. As soon as the high speed connection can be re-established, the communication can be switched over from the narrowband connection. The flow chart in Figure 4 illustrates an example operational procedure.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The sole rejection to be reviewed on appeal is the obviousness rejection based on the combination of three references: McHale, Bremer, and Duffie.

VII. ARGUMENT

A. The McHale Reference Lacks Many Claim Features

McHale permits over-subscription of data services using a communication server that assigns an xDSL transceiver from a bank of xDSL transceivers to subscribers requesting data communications. The communication server selectively couples a number of twisted pair data lines to a reduced number of xDSL modems. A controller polls subscribers for data requests, and directs a switch to couple the selected data line to an available xDSL modem. The controller maintains profile information on the various twisted pair lines that can be coupled to the xDSL transceivers in a profile table. This profile information is generated in a training session and then retrieved to train a modem or transceiver unit to communicate data over the associated twisted pair line using xDSL communication techniques.

McHale lacks a number of claim features recited in the independent claims 12 and 18. For example, claims 12 and 18 recite a user terminal which the Examiner reads on to a subscriber 12 in Figure 1 of McHale. Claims 12 and 18 also recite a net terminal coupled between the user terminal and an access point. The Examiner fails to identify any element in Figure 1 as corresponding to that claimed net terminal. The claimed *net terminal* is not disclosed and is a *first missing feature*.

In addition, the claimed net terminal includes two different types of modems: "a first high speed, broadband modem" and "a second, lower speed narrow band modem." The Examiner refers to a modem 30 shown in Figure 1 included in the computer 22. In

addition, the modem 30 in the user terminal 12--not in a net terminal separate from the user terminal--is a single type of modem. There is no showing of plural modems in subscriber 12, and there is no teaching of different types of modems in McHale's subscriber 12. To the contrary, the single modem 30 corresponds to a single type of modem – an XDSL modem. See column 5, line 12 and lines 22-24. Hence, McHale *lacks a second claimed feature* from the independent claims.

A third feature recited in claims 12 and 18 lacking from McHale is an "access point" which includes *two different types of modems*: "one or more high speed, broadband modems" and "one or more lower speed, narrowband modems." The Examiner attempts to read the claimed access point on to the communication server 58 of McHale. McHale's access point 58 only describes a single modem pool 74 and that modem pool 74 only includes one type of modem – xDSL modems. See column 8, lines 22-24, lines 33-35 and lines 58-60. Hence, McHale *lacks a third claimed feature* from the independent claims.

The Examiner admits that "McHale does not teach a first switching circuitry selectively controllable to direct signals to and from the user terminal via the communication network using the first modem or second modem and a controller for controlling the first and second switching circuitry to support the connection." Page 6 of the final action. These admitted missing switching and controller features are the *fourth and fifth* independent claim features *missing* from McHale.

B. Bremer and Duffie Do Not Disclose All Five Claim Features Missing From McHale

1. Bremer

Bremer teaches communicating voice and data between customer premises and a central office. But Bremer shows the customer premise 22 including only a single modem 20. See Figure 2. There is no teaching in Bremer of multiple modems or modems of different types in the customer premise 22. Similarly, in Figure 2, the central office 24 only contains a single modem 40.

Bremer also does not teach switching between two different types of modems. The switch 110 in Figure 5 is part of an analog front end element 66 included in the customer premise modem 20. That switch 110 is used for a completely different function: to put the telephones 30 and 32 in either an ON-HOOK state or an OFF-HOOK state. Clearly, Bremer's switch and controller have nothing to do with switching between modems, let alone switching between modems of different types.

There is no teaching in Bremer of second switching circuitry that is "selectively controllable to direct signals to and from the user terminal via the communications network using the first modem or the second modem." Nor does Bremer teach second switching circuitry that is "selectively controllable to support a connection with the user terminal via the communication network using one of the broadband modems or one of the narrowband modems."

2. Duffie

The Examiner states that "McHale and Bremer in combination do not teach a controller for controlling the first and second switching circuitry to support the connection." Duffie describes a splitter bypass system and method for monitoring, testing, and maintaining copper loops and lines. The switching devices bypass a low pass filter and/or a high pass filter in the splitter to enable pure metallic access to the loop, digital equipment, voice equipment, and/or test equipment. The splitter bypass operation includes selecting a copper loop or portions thereof for monitoring, testing, and maintenance.

Clearly, Duffie is not directed to providing access to telecommunication services for users. The switches in Figures 6-8 switch in and out high pass filter 24 and low pass filter 22. The control and management circuitry 100 controls the switching devices 102 from their normal modes to "testing" modes to perform loop qualification, troubleshooting, and monitoring. Like Bremer, Duffie does not teach anything more than switches being controlled by a controller for functions totally unrelated to what is claimed.

3. Bremer and Duffie Do Not Teach the Missing Features

Neither Bremer nor Duffie teach:

- a net terminal in addition to a user terminal and an access point
- a net terminal that includes two different types of modems: "a first high speed, broadband modem" and "a second, lower speed narrow band modem."

- an access point which includes *two different types of modems*: "one or more high speed, broadband modems" and "one or more lower speed, narrowband modems."
- a net terminal with first switching circuitry for directing connection signals from the user terminal to the network using either the first high speed, broadband modem or the second, lower speed narrowband modem.
- an access point with second switching circuitry to support a network connection with the user terminal using either one of the broadband modems or one of the narrowband modems.

Hence, the combination of McHale, Bremer, and Duffie, even if it could be made, fails to teach these bulleted features from claims 12 and 18. The obviousness rejection is clearly in error.

C. The Combination of McHale, Bremer, and Duffie Is Based On Improper Hindsight

The Examiner uses improper hindsight to select certain features from Bremer and Duffie in a failed attempt to show the claimed first and second switching circuitry and controller recited in the independent claims. As explained, the Examiner relies on the analog front end 66 of Bremer's modem 20 as allegedly teaching the claimed first switching circuitry. The analog front end switch 110 is controlled by a controller 80 to change the state of the phone from ON-HOOK to OFF-HOOK. Switching a resistor 108 in and out of a circuit depending upon whether the telephone is in an ON-HOOK state or an OFF-HOOK state is simply not relevant to directing signals to and from the user

terminal via the communications network using a selected one of the claimed first and second modems contained in the net terminal.

Duffie is even farther removed than Bremer. Duffie merely teaches a testing device with various bypass functions to facilitate testing operations. The fact that the Examiner has found a reference which shows a controller controlling first and second switches in a context that has nothing to do with what is recited in the independent claims is the epitome of improper hindsight reconstruction.

The motivation advanced by the Examiner to incorporate the teachings of Bremer with McHale is to "control or monitor OFF-Hook and ON-Hook states of the local loop as taught by Bremer." The motivation advanced by the Examiner to incorporate the teachings of Duffie with Bremer and McHale is to "monitor loop qualification troubleshooting and voice portion of the loop." But neither "motivation" has anything to do with what is recited in the independent claims or with what is taught in McHale. Indeed, the motivations are at best arbitrary. There is no reason suggested by the prior art why a person of ordinary skill in the art would want to include Bremer's off-hook/on-hook switch or Duffie's loop monitor in McHale's communication server.

A proper motivation to combine requires an appreciation of the desirability of making the combination. It is not measured by the feasibility of making the combination. See *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 (Fed. Cir. 2000). The Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and no knowledge of the claimed invention, would select the elements from the cited prior art references for the combination in the manner claimed. *In re*

Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998). The Examiner has failed to make such a showing in this case. The obviousness rejection is improper on this grounds as well.

D. Dependent Claim Features Are Patentable For Additional Reasons

As established above, there are multiple reasons why the rejection of the independent claims 12 and 18 is improper. A number of dependent claim features are also not disclosed or suggested by the combination of these three references.

Claims 14 and 19 recite controlling "the first and second switching circuitry to select the second modem and the one narrow band modem if or when the connection cannot be supported as desired between the first modem and the one broadband modem." The Examiner relies upon Duffie, at column 5, lines 43-47, as allegedly teaching this feature. Yet this text says nothing about selecting a different type of modem set from the type of modem set currently being used "if or when the connection cannot be supported as desired" using the current type of modem set. All this language in Duffie says is that the test equipment 8 can be used for loop qualification, trouble-shooting, and monitoring, that the loop qualification can be performed in the central office, and that test equipment 8 can be used to monitor the loop status.

The Examiner's rejections of claims 16 and 21 based on this same text in Duffie is likewise flawed. Claim 16 recites "the controller is configured to establish the connection using the second modem and the one narrowband modem, and thereafter, to control the first and second switching circuitry to select the first modem and the one broadband modem." Similar language is found in claim 21. The loop monitoring and

qualification in text in Duffie is simply not applicable to this two-stage approach to support a connection with two different types of modems.

The Examiner's rejections of claims 17 and 22 based on this same text in Duffie is also flawed. Claim 17 recites "wherein a data connection and a voice connection are established and supported in parallel with the user terminal using the first and second modems and the one broadband modem and the one narrowband modem." Similar language is found in claim 22. The Duffie text at column 5, lines 43-47 simply does not apply. There is no teaching of supporting parallel voice and data connections with a user terminal using a narrowband modem and a broadband modem.


VIII. CONCLUSION

Multiple features of the independent claims are not disclosed or suggested by the combination of McHale, Bremer, and Duffie. There is no proper motivation to combine their teachings as the Examiner proposes. Each missing claim feature and the lack of motivation for combination is an independent ground for reversal. The Board should reverse the outstanding rejections.

Appeal Brief
Roos
Serial No. 09/741,741

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 
John R. Lastova
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JRL/sd
Enclosures
Appendix A - Claims on Appeal



IX. CLAIMS APPENDIX

12. Apparatus for use in a communications system for providing access to telecommunication services, comprising:

a user terminal operable by a subscriber for receiving telecommunication services;

a net terminal coupled between the user terminal and an access point associated with a communications network including a first high speed, broadband modem, a second, lower speed, narrowband modem, and first switching circuitry selectively controllable to direct signals to and from the user terminal via the communications network using the first modem or the second modem;

the access point including one or more high speed, broadband modems, one or more lower speed, narrowband modems, and second switching circuitry, different from the first switching circuitry, selectively controllable to support a connection with the user terminal via the communication network using one of the broadband modems or one of the narrowband modems; and

a controller for controlling the first and second switching circuitry to support the connection.

13. The apparatus in claim 12, wherein the high speed, broadband modem is an xDSL modem and the lower speed, narrowband modem supports a PSTN or ISDN narrowband connection.

14. The apparatus in claim 12, wherein the controller is configured to control the first and second switching circuitry to select the second modem and the one narrowband modem if or when the connection can not be supported as desired between the first modem and the one broadband modem.

15. The apparatus in claim 12, wherein the controller is configured to regulate switching of the first and second switching circuitry based on detection of one or more predetermined conditions.

16. The apparatus in claim 12, wherein the controller is configured to establish the connection using the second modem and the one narrowband modem, and thereafter, to control the first and second switching circuitry to select the first modem and the one broadband modem.

17. The apparatus in claim 12, wherein a data connection and a voice connection are established and supported in parallel with the user terminal using the first and second modems and the one broadband modem and the one narrowband modem.

18. A method for use in a communications system for providing access to telecommunication services to a subscriber associated with a user terminal operable by the subscriber for receiving telecommunication services, comprising:

providing a net terminal coupled between the user terminal and an access point associated with a communications network including a first high speed, broadband modem, a second, lower speed, narrowband modem, and first switching circuitry

selectively controllable to direct signals to and from the user terminal via the communications network using the first modem or the second modem,

providing at the access point one or more high speed, broadband modems, one or more lower speed, narrowband modems; and second switching circuitry, different from the first switching circuitry, selectively controllable to support a connection with the user terminal via the communication network using one of the broadband modems or one of the narrowband modems; and

controlling the first and second switching circuitry to support the connection.

19. The method in claim 18, further comprising:

controlling the first and second switching circuitry to select the second modem and the one narrowband modem if or when the connection can not be supported as desired between the first modem and the one broadband modem.

20. The method in claim 18, further comprising:

switching of the first and second switching circuitry based on detection of one or more predetermined conditions.

21. The method in claim 18, further comprising:

establishing the connection using the second modem and the one narrowband modem, and

controlling the first and second switching circuitry to select the first modem and the one broadband modem.

22. The method in claim 18, further comprising:

establishing and supporting a data connection and a voice connection in parallel with the user terminal using the first and second modems and the one broadband modem and the one narrowband modem.

X. EVIDENCE APPENDIX

There is no evidence appendix.

XI. RELATED PROCEEDINGS APPENDIX

There is no related proceedings appendix.